The European GNSS Programmes
EGNOS and Galileo

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September 2010
★ New Commission
★ Move of GALILEO and EGNOS to DG « ENTERPRISE and INDUSTRY » (ENTR)
★ Imminent adoption of the new regulation 1321 for the future of the GSA
★ Research activities :
  ★ Three calls during the FP7 :
    ★ Call 2007 : 25 M€
    ★ Call 2008 : 40 M€
    ★ Call 2011 : 38 M€       Launched 20 July 2010
★ Revision of the current financial perspectives until 2013 and preparation of the new perspectives after 2013, including FP8
The GNSS Regulation entrusts the European Commission with the role of *programme manager*.
EGNOS

‘It’s there, use it’
EGNOS will deliver its services on a long-term basis (>20 years).

<table>
<thead>
<tr>
<th>Service</th>
<th>Characteristics</th>
<th>Service Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Service</td>
<td>accuracy ~1m, free</td>
<td>available since October 2009</td>
</tr>
<tr>
<td>Safety of Life Service</td>
<td>accuracy ~1m, compliant to aviation standards</td>
<td>to be made available end of 2010</td>
</tr>
<tr>
<td>Commercial Service (EDAS)</td>
<td>accuracy &lt;1m, corrections are provided by terrestrial networks</td>
<td>experimental service since 2008; official service to be made available in 2011</td>
</tr>
</tbody>
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EDAS ... EGNOS Data Access Server
The EGNOS commercial service (EDAS) will be made available in 2011.

EGNOS data (real-time):
- RIMS raw observations
- SBAS messages

★ Phase 1 “prototyping”:
★ Beta test users
★ Freely available to all, after registration
★ Service Definition phase
★ Experimental service until end of 2010
★ Phase 2: Service Provision (as from 2011)
With around 1 m (blue line), the measured Horizontal Precision Error for the centre of Europe is consistently better than the requirements.

HPE … Horizontal Precision Error, HPL … Horizontal Protection Level

Source: http://www.egnos-pro.esa.int/IMAGEtech/perfect/real_time/view_all/toulouse.html
EGNOS Improvement on Precision

GPS

D-GPS

SBAS (EGNOS)
Navigation solutions powered by Europe
In order for Galileo to be recognized by the downstream market as the second satellite navigation system of choice it is key to deliver early services as soon as 2014/2015.
Galileo will be offering five services.

<table>
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<th>Service</th>
<th>Description</th>
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<tr>
<td>Open Service</td>
<td>Free to air, mass market, simple positioning</td>
</tr>
<tr>
<td>Commercial Service</td>
<td>Encrypted, high accuracy, added-value service</td>
</tr>
<tr>
<td>Safety of Life Service</td>
<td>Adds integrity to Open Service</td>
</tr>
<tr>
<td>Public Regulated Service</td>
<td>Encrypted, robust, continuous availability</td>
</tr>
<tr>
<td>Search and Rescue Service</td>
<td>Near real-time, precise, return link</td>
</tr>
</tbody>
</table>
The GNSS Action Plan

- **Adopted by the EC on 14 June 2010**

- **Duration**: 2010-2013, revised in 2013

- **24 actions to be implemented by the Commission with the assistance of the GSA**:
  - A series of “horizontal” actions, by nature cross-cutting, to foster GNSSs pervasiveness
  - A series of actions in priority domains

- **Type of actions**:
  - Certification, standardization, and coordination activities
  - Information dissemination, information exchange, and awareness-raising campaigns
  - Fund-raising for GALILEO or EGNOS-based innovation
  - Regulatory measures (mainly for safety and security in road transport)
The GNSS Action Plan: horizontal actions

- Allocation of **38 M€ of research funding for GNSS applications** in 2011 (including the funding of R&D activities aimed at reducing the cost of EGNOS/Galileo receivers)

- Increase **synergy** between GALILEO, GMES, GEOSS and telecommunication programmes towards improved combined services


- **Increase of awareness among SMEs**: Enterprise Europe Network / GNSS-innovation voucher scheme

- **Synergies** sought between investment programmes run by the European Investment Bank and other programmes (e.g. Technology Transfer programme of ESA)

- Support with the GSA of the **“European Satellite Navigation Competition”**
The GNSS Action Plan: 6 priority domains for sectorial actions

1: LBS
2: Road transport
3: Aviation
4: Maritime transport
5: Environment and agriculture
6: Civil protection and surveillance

24 September, 2010
THE GNSS ACTION PLAN: future perspectives

★ **Council**: On-going discussions on conclusions to be possibly addressed by Transport Council Ministers of Oct. 15th

★ **EP**: Own-initiative report to be adopted. Mrs Ticau (S&D, RO) appointed as Rapporteur.

★ **CESE, CdR**: to discuss soon with the Commission to provide possible opinions.

★ **What, after the adoption of the Action plan?**
  ★ Iterative and Adaptive Process: Market Monitoring Tool under development by the GSA to support the monitoring
  ★ Next « rendez-vous » = agreement on Galileo’s exploitation phase for the post 2013-period
Thank you for your attention

http://www.egnos-portal.eu/